

Duffy

BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 80-251-E - ORDER NO. 89-56
FEBRUARY 8, 1989

IN RE: Small Power Production)
and Cogeneration Facil-)
ities - Implementation) ORDER
of Section 210 of the)
Public Utilities Regula-)
tory Policies Act of 1978)

I.

INTRODUCTION

This matter comes before the South Carolina Public Service Commission (the Commission) under Docket No. 80-251-E, Small Power Production and Cogeneration Facilities--Implementation of Section 210 of the Public Utility Regulatory Policies Act of 1978 (PURPA). Section 210 of PURPA directed the Federal Energy Regulatory Commission (FERC) to prescribe rules designed to encourage cogeneration and small power production by requiring electric utilities to offer both to sell electric energy to qualifying cogeneration facilities and to qualifying small power production facilities (QFs) and to purchase electric energy from such facilities. The Commission determined that a review of the small power production and cogeneration schedules and their implementation would be appropriate in 1987.

In order for testimony and evidence to be received from all interested parties, a public hearing was initially scheduled by the

Commission to be held in the Hearing Room at 111 Doctors Circle, Columbia, South Carolina, on Wednesday, October 7, 1987 at 10:30 a.m.

On June 25, 1987, the Commission issued an Order requiring that the South Carolina jurisdictional electric utilities (Utilities) involved in this Docket, namely Carolina Power & Light Company (CP&L), Duke Power Company (Duke), and South Carolina Electric & Gas Company (SCE&G), be parties of record and that all other interested parties wishing to intervene shall file on or before August 7, 1987 a petition to intervene.

The Consumer Advocate of the State of South Carolina (the Consumer Advocate), Union Camp Corporation (Union Camp), Lockhart Power Company (Lockhart), and Clifton Power Corporation (Clifton) filed petitions to intervene.

On August 7, 1987, the Commission issued an Order requiring the filing of proposed issues by all parties of record on or before August 24, 1987; setting a prehearing conference to take place on Monday, August 31, 1987 in the offices of the Commission; requiring all parties of record to prefile and serve upon the other parties the prepared testimony and exhibits of any witness they intend to offer at the hearing on or before September 23, 1987; and requiring that any supplemental testimony should be prefiled and served on the other parties on or before September 30, 1987.

Subsequently, statements or lists of issues were filed by: Union Camp; the Consumer Advocate; CP&L; Aquenergy Systems, Inc. (Aquenergy); Riegel Power Corporation (Riegel); Duke; and Clifton.

Upon review of the received statements of issues, the Commission Staff recommended to the Commission that since the parties were nearly aligned with respect to the issues to be dealt with in the instant proceeding, efficiency would be best served (without prejudice to any party) by cancelling the prehearing conference. The Commission agreed and the cancellation was ordered on September 9, 1987.

On September 16, 1987, Aquenergy and Riegel filed a Motion for Continuance of the Hearing citing delays in the receipt of response to interrogatories. The Commission granted the continuance and on September 30, 1987 ordered the hearing rescheduled for January 27, 1988. In that same Order, the Commission reset the dates for filing and serving of direct and supplemental testimony and exhibits to January 6 and 20, 1988, respectively.

Prior to the commencement of the hearing, Nucor Steel, a division of Nucor Corporation (Nucor); Soft Care Apparel, Inc. (Soft Care); and Bluestone Energy Design, Inc. (BED) filed Petitions to Intervene Out of Time. These were all allowed by the Commission.

In addition to the foregoing, there were various other motions, petitions, orders, and filings not specifically mentioned here but which the record will reflect.

On Wednesday, January 27, 1988, the public hearing was convened at 10:30 a.m. in the Commission's Hearing Room at 111 Doctors Circle, Columbia, South Carolina, the Honorable Cecil A. Bowers, presiding.

Appearances were as follows: Robert W. Kaylor, Esquire, and Russell N. Putnam, Esquire, represented CP&L; Robert T. Bockman, Esquire, represented SCE&G; William Larry Porter, Esquire, represented Duke; Natalie J. Moore, Esquire, represented the Consumer Advocate; Jack W. Lawrence, Esquire, represented Clifton Power Corporation; F. Timothy Lamb testified on behalf of BED; Francis P. Mood, Esquire, and Garrett A. Stone, Esquire, represented Nucor; Blake W. Trimble, Esquire, and Glenn D. Haake, Esquire, represented Union Camp; Glenn D. Haake, Esquire, represented Soft Care; and Sarena D. Burch, Staff Counsel, represented the Commission Staff.

Testimony was presented as follows: CP&L presented the testimony of G. Wayne King; SCE&G presented the testimony of Andrew V. Bowden, Jr.; Duke presented the testimony of Walter E. Sikes, Steve W. Smith, and John N. Freund; the Consumer Advocate presented the testimony of Dr. John K. Stutz and Harvey Salgo; BED presented the testimony of F. Timothy Lamb; and Clifton presented the testimony of Charles B. Mierek.

The Commission's rulings as set forth in its prior Order in this docket, Order No. 85-347, dated August 2, 1985, will remain in full force and effect except to the extent modified by this Order.

II.

ISSUES

A. Capacity Credit Development.

Capacity credits are based on avoided costs resulting from the utility not having to construct new power plants. All parties to

the proceeding agreed that capacity credits act as an incentive to cogenerators and small power producers. Therefore, capacity credits carry out the intent of Section 210 of PURPA to encourage small power production and cogeneration.

Duke proposed that its capacity credit be based on a new combustion turbine. According to Duke, it should include depreciation, debt and equity return, state and federal income tax, property tax, insurance, materials and supplies, fixed operation and maintenance expenses, cash working capital, transmission losses, and unit availability. Duke uses an 89.3% availability factor in determining rates. Therefore, if a QF runs 89.3% of the on-peak time, it would collect full capacity costs based on the new combustion turbine. Distribution line capacity costs are not avoided, therefore, not included in the rate as Duke must maintain the distribution system regardless of the presence of QF.

CP&L suggested using a new combustion turbine also. CP&L testified that for the standard tariff it should include levelized annual costs, adjusted for general plant, fixed operation and maintenance costs for an IC turbine, marginal losses and a reserve margin.

SCE&G proposed a capacity credit, to be effective May 1, 1989, based on a combustion turbine. SCE&G would then adjust for operation and maintenance expenses, losses, depreciation, cost of capital and working capital.

The Consumer Advocate testified that the "peaker" or combustion turbine is not the appropriate capacity to be avoided by

all three utilities. It proposed that Duke use Bad Creek; CP&L - Mayo II; and SCE&G - combined cycle. It also proposed using a nominal rather than a real levelized fixed charge factor to avoid the problem of specifying the "correct" inflation rate. If the IC turbine is to be used, the Commission should designate a source as the standard for the price of the IC turbine (EPRI Technical Assessment Guide is suggested). The Consumer Advocate also advocates a standard formula for determining the credit to be established and it should include a factor other than 100% to allow the QF to collect the full allowance.

Clifton proposed that the type unit used for avoided capacity be the same as that used for avoided energy as any other method would be a mismatch and either over or under pay the cogenerator.

The Commission finds that at present, the rates for all three utilities should be based on the two year levelized annual costs of an internal combustion turbine, adjusted for general plant, fixed O&M costs, marginal losses, and an availability factor (89.3% for combustion turbine). The Commission considers the SCE&G estimated capital cost for a combustion turbine to be unrealistically low, specifically when compared to the costs of the other two utilities. SCE&G's testimony at the hearing was that a combustion turbine would be the next unit in its expansion plan. The Commission directs SCE&G to use the cost of that unit (Hagood IC Turbine) to calculate a capacity credit for a two year levelized rate.

Clifton also proposed that the calculation of the capacity credit should include reserves which the utility would require for

its own generation to cover those projected to be covered by the cogenerator. Generally a utility must have sufficient reserves to back-stand its own generation and the generation of the cogenerators and small power producers, therefore, the Commission denies this proposal.

B. Seasonally Differentiated Capacity Credit.

Duke proposed on-peak and off-peak months capacity credit based on system load history. SCE&G and CP&L proposed to continue their summer and non-summer differentiated rates. The Commission recognizes there are differences in the load characteristics of the three companies and finds that the proposals of CP&L and SCE&G are reasonable. The Commission finds that the four months of no capacity credit proposed by Duke is not reasonable and thus disapproves Duke's proposal.

C. Energy Credit Development.

All three utilities use system simulation with and without cogeneration to determine the incremental avoided energy costs. The Commission finds that each utility is using reasonable methods to determine the avoided energy costs.

Clifton stated that considerable political and social benefits will accrue due to decentralized energy production and proposed that these benefits should have values assigned. The Commission finds that this proposal should be denied due to the fact that these benefits are not known and measurable.

D. Power Tax.

All three utilities included the .05 cents per kwh power generation tax as avoided cost and thus the responsibility of the QF. The Commission finds that inclusion of this tax is appropriate.

E. Seller Charge.

SCE&G proposes a flat \$6.00 per month charge. CP&L proposes a varying charge based on capacity - \$5.00 for 0-100 kw; \$65.00 for 101-999 kw; and \$193.00 for 1,000 kw and greater. Duke did not propose a seller charge. The Commission approves the seller charges as proposed by SCE&G and CP&L.

F. Avoided Cost Rates.

Each utility filed proposed avoided cost rates. The Commission directs Duke, CP&L, and SCE&G to file their rates based on the directives of this Order within ten (10) days of the date of this Order for Commission approval.

G. Long Term Rates.

The Consumer Advocate proposed that all companies publish long term rates to be used as a starting place for negotiations. According to the Consumer Advocate, there should be no inflation adjustment as proposed by Clifton as this is essentially the same as the attrition allowance which has been consistently rejected by this Commission.

Duke is concerned about possible inaccuracies in the latter years of 10 and 15 year contracts as plans change over time as demands shift. Changes in the planning horizon, forecasts and

construction programs all have a significant effect on estimates of avoided costs in the latter years of a 10 to 15 year contract time frame.

SCE&G proposed rates based on 5, 10 and 15 year contracts. The Commission continues to find that long-term rates should not be mandated as part of the standard tariff package and encourages negotiation. However, SCE&G may use 10 and 15 year proposed contracts in negotiations of long term agreements.

The Consumer Advocate also proposed that the Commission should publish guidelines for all utilities to follow in developing and negotiating front loaded (levelized) rates. Duke Power opposed levelized rates, particularly if there is no protection in the event of a default. The Commission finds that as to front loaded rates, it will not require such rates but again encourages negotiation. The Commission is not convinced of the appropriateness of front loaded rates unless perhaps accompanied by a protective mechanism such as an insurance policy.

H. Price Ceiling.

Duke proposed that a price ceiling be established which would be below the avoided costs to assure benefit to the purchasing customers. The Commission finds that contract rates should be set no higher than avoided costs pursuant to the requirements of PURPA.

I. Bidding System.

The Consumer Advocate recommended that all utilities develop bidding systems for the Commission to consider as an appropriate standard system. The use of a bidding system, according to the

Consumer Advocate, is one way to improve the elements of good faith negotiation, by forcing a utility to set forth in advance its requirements and how it values different attributes of the potential QF's operation. Union Camp testified that a bidding system would be inconsistent with Section 210 of PURPA and opposed the Consumer Advocate's recommendation. Competitive bidding, according to Union Camp, is impermissible under federal law because it would allow utilities to purchase electricity from QF's at less than full avoided cost. Duke favored waiting until FERC's final position on bidding is known prior to venturing into such a system. The Commission agrees with Duke and will not make any finding on this issue until FERC's final position on bidding is known.

J. Standard Contract.

Duke has proposed a standard contract for purchased power agreements which Duke testified would facilitate negotiations and assist QF's in dealing with financial institutions. The Commission observes that standard contracts are beneficial to the orderly process of business. Therefore, the proposed contract of Duke is approved and the Commission orders CP&L and SCE&G to also file proposed standard contracts to be used in negotiating with QFs within sixty (60) days of the date of this Order.

K. Supplementary, Back-up and Maintenance Power.

The Commission recognizes that a qualifying facility has a potential need for three additional types of service from an electric utility. These types of services are supplementary power, back-up power, and maintenance power. These three types of

services were defined in Order No. 85-347 as follows:

1. Supplementary Power--power which is defined as the electric energy or capacity supplied by an electric utility, regularly used by a qualifying facility in addition to that which the facility generates itself.
2. Back-Up Power--power defined as the electric energy or capacity supplied by an electric utility to replace energy ordinarily generated by a facility's own generation equipment during an unscheduled outage of the facility.
3. Maintenance Power--power defined as the electric energy or capacity supplied by an electric utility during scheduled outages of the qualifying facility.

Clifton testified that Duke's proposed back-up rate in Schedule PP does not meet the requirements of PURPA or of this Commission as set forth in Order No. 85-347. Clifton wants rates G, I, and OPT opened to cogenerators.

Duke testified that its proposed back-up rate in Schedule PP, together with Schedule PG which contains a supplementary power rate, does meet the requirements of PURPA and of this Commission's Order No. 85-347.

The Consumer Advocate proposed that a QF should be served under the same rates as all other customers or under rates designed using the utilities normal ratemaking procedures rather than being served under special inflated rates. According to the Consumer Advocate, there should be separate rates for these three types of service as the character of service for each is very different.

The Commission does not find that Duke's proposed Standby Charges in the proposed Schedule PP appropriately responds to the instructions either in Order No. 85-347 of this docket or Order No.

86-1116 under Docket No. 86-188-E. Both of these orders direct that rates for Supplementary, Back-up and Maintenance Service to QF's be submitted. The Commission finds that Duke should file individual tariffs for these three types of service within sixty (60) days of the date of this Order. These tariffs should be developed using the same type cost analysis and ratemaking methodology as Duke employs in its retail tariffs.

L. Good Faith Negotiations.

Clifton requests that Duke should be instructed to comply with PURPA and the lawful Orders of this Commission by negotiating in good faith with all QF's. The Commission encourages good faith negotiations and requires its jurisdictional utilities to comply with PURPA regulations and the Orders of the Commission.

M. Cost of Complaint Hearings.

Clifton requested that the Commission restate its position that should a reasonable offer be made by a QF and that proposal is unreasonably rejected by a utility, the Commission has the right to assess the QF's costs of filing the complaint against the affected utility. The Commission's position is that it has the right to assess the QF's reasonable costs of filing the complaint to the utility.

N. Promotion of Cogeneration and Small Power Production.

This Commission believes that the goals of PURPA should be encouraged. Cogeneration and small power production offer benefits to South Carolina ratepayers when practiced in a responsible manner. The Commission's actions in the implementation of PURPA in

South Carolina (Order No. 85-347, supra.) and our actions herein are designed to encourage cogeneration and small power production in South Carolina.

The Commission intends to continue its policy of encouraging QF participation by providing an appropriate atmosphere, which includes setting of proper pricing signals as well as elimination or minimization of other barriers or obstacles between the parties. This effort must be accomplished within the PURPA guidelines which require rates for the purchase of power to be based on avoided electric utility costs, and require these rates to be just and reasonable to the electric consumers, and non-discriminatory to the QFs.

The Commission, in order to properly comply with the mandates of PURPA must provide an environment that promotes efficient use of energy resources. Stability in the standard tariffs offered by the electric utilities is one way to assist in the meeting of this goal. The Commission is not convinced that the rates of the standard tariffs for Duke, CP&L, and SCE&G should be lowered at this time as proposed by these utilities. Their currently approved rates continue to represent reasonable avoided, short-term cost expectations and, therefore, should not be modified, except that SCE&G should also include a capacity credit on its tariff based on the cost of an internal combustion turbine unit as discussed herein.

III.

FINDINGS AND CONCLUSIONS

Based on a thorough review of the record herein and on the foregoing discussion the Commission finds and concludes as follows:

1. That the capacity credit should be set using a combustion turbine as the avoided unit for all three utilities. Duke and CP&L should not change their presently approved capacity credit. SCE&G's capacity credit should be set at a two-year levelized annual cost of a new combustion turbine, adjusted for general plant, fixed O&M costs for an IC turbine, marginal losses and using an availability factor of 89.3%. The Commission finds no reason in the evidence to delay availability of a capacity credit from SCE&G until May 1, 1989. Therefore, the Commission makes this credit available with the approval of new rates filed in accordance with this Order.

2. That the Commission recognizes the difference in load characteristics of the three utilities and finds that the proposals of SCE&G and CP&L for the seasonally differentiated capacity credit should be approved. Duke will retain the non-seasonally differentiated rate for the capacity credit previously approved.

3. That all three utilities' use of system simulations with and without cogeneration to determine the incremental avoided energy cost is reasonable.

4. That all three utilities should continue to include the .05 cents per kwh power generation tax as avoided cost and therefore this expense remains the responsibility of the QF.

5. That the seller charges as proposed by SCE&G and CP&L are approved.

6. That Duke continue to use its currently approved Schedule PP(SC) tariff; that SCE&G is directed to use its proposed tariff form, Rate PR-1, except as modified herein; and that CP&L shall use its proposed tariff form, Schedule CSP-11, except as modified herein and also shall transfer the Early Contract Termination subsection to its Terms and Conditions as proposed.

7. That long term rates should not be dictated but the Commission encourages good faith negotiation.

8. That the Commission disapproves SCE&G's proposed rates based on 5, 10 and 15 year contracts. That the Commission, as to front loaded rates, will not require long term standard rates but again encourages negotiation. The Commission is not convinced of the appropriateness of front loaded rates unless perhaps accompanied by a protective mechanism.

9. That contract rates should be set no higher than avoided costs, pursuant to the requirements of PURPA.

10. That the Commission will make no finding concerning bidding systems until FERC issues an Order on bidding.

11. That the Commission approves the proposed standard contract of Duke and orders CP&L and SCE&G to also file proposed standard contracts to be used in negotiating with QF's within

sixty (60) days of the date of this Order.

12. That as to supplementary, back-up and maintenance power, Duke is directed to file individual tariffs for these services as delineated herein, within sixty (60) days of the date of this Order.

13. That the Commission encourages good faith negotiations and requires its jurisdictional utilities to comply with PURPA regulations and the Orders of the Commission.

14. That the position of the Commission continues to be that should a reasonable offer be made by a cogenerator and that proposal is unreasonably rejected by a utility, the Commission has the right to assess the cogenerator's cost of filing the complaint against the affected utility to that utility.

15. That the Commission believes the goals of PURPA should be encouraged.

16. That Duke, CP&L and SCE&G shall file for approval their avoided cost rates based on the directives of this Order within ten (10) days of the date of this Order, to be effective the date of this Order.

IT IS THEREFORE ORDERED:


1. That each Utility shall implement the requirements as approved by the Commission herein.

2. That each Utility shall file with the Commission for approval within ten (10) days of the date of this Order, the tariffs and within sixty (60) days of the date of this Order, contracts as set forth herein.

3. That Duke Power Company shall file supplementary, back-up, and maintenance power tariffs for approval within sixty (60) days of the date of this Order.

4. That this Order shall remain in full force and effect until further Order of the Commission.

BY ORDER OF THE COMMISSION:


Chairman

ATTEST:


Executive Director

(SEAL)